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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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G. Michael Uhler

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05/26/2006

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EXAMINER

COLEMAN, ERIC

ART UNIT

PAPER NUMBER

2183

DATE MAILED: 05/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/921,377

Applicant(s)

UHLER, G. MICHAEL

Examiner

Eric Coleman

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2183

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 and 16-19 is/are allowed.
- 6) ☒ Claim(s) 11-15 and 20-26, 28, 29 is/are rejected.
- 7) ☒ Claim(s) 27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 11-15, 20-25, 26,28, 29 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

3. Claim 11 is directed to a method for providing a user mode access to specified privileged state registers. The method provides a mask register writable in kernel mode containing bits corresponding to a plurality of privileged state registers and setting specified ones of the plurality of bits while in the kernel mode of the microprocessor. However the method also contains a step where if a user mode instruction requests access to one of the plurality of privileged state registers, and if a corresponding one of the plurality of bits within the mask register has not been set by said setting, providing the contents of the one of the plurality of state registers to the user mode instruction. This last step is not concrete. It will only be performed if a condition is met. Therefore when the condition is not met the result of the last step is not produced. The claimed invention as a whole must accomplish a practical application that is must produce a useful, concrete and tangible result (State Street, 149 F.3d at 1373, 47 USPQ2d at 1601-02. MPEP 2106. Here as discussed above the result of the claims is not concrete. These reasons for rejection is also applied to the claims that depend from claim 11 (claims 12-15).

4. Claim 20 is directed to a computer program product comprising a computer usable medium having computer readable program code embodied in said medium for causing a microprocessor to be described, the program code for providing registers that are accessible or writable under specified conditions. However computer usable medium can be a computer usable storage medium or a computer usable transmission medium. A transmission medium is not within one of the categories of invention (machine, manufacture, composition of matter, or process). The transmission medium (such as a carrier wave does) does not provide for a tangible implementation and therefore the program produced on a computer usable transmission medium is abstract. The claims and disclosure do not limit the invention to a tangible medium such as computer readable storage medium or memory. And therefore the invention of claim 20 (and the claims that depend on claim 20, namely claims 21-22) is non-statutory.

5. Claim 23 is directed to a data signal embodied in a transmission medium comprising computer readable program code for providing a register set. A data signal is not within one of the categories of invention (machine, manufacture, composition of matter, or process). A data signal in a transmission medium is not tangible. Even when the data signal comprises content is program code the data signal is not tangible. Therefore the invention of claim 23, and the claims that depend on claim 23 (claims 24-25) are not statutory.

6. Claim 26 (and claims 28,29 that depend on claim 26) is directed to a method allowing an operating system to control user mode access to privileged architecture registers. The steps of the method provide a mask register, set bits in the mask register

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and determine whether a bit in the mask register corresponds to the requested one of the privileged architecture registers has not been set. The last step provides access to the requested register if the bit has been set. This last step is not concrete. It will only be performed if a condition is met. Therefore when the condition is not met the result (providing access) of the last step is not produced. The claimed invention as a whole must accomplish a practical application that is must produce a useful, concrete and tangible result (State Street, 149 F.3d at 1373, 47 USPA2d at 1601-02. MPEP 2106. Here as discussed above the result of the claims is not concrete in claims 26,28,29. However, claim provides the performance of the operation that happens when the bits is not set so the operations when the bit is set and when it is not set it provided in the claim 27 meeting the concrete requirement.

Allowable Subject Matter

7. Claims 1-10 and 16-19 are allowed.
8. Claim 27 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Caulk (patent No. 5,742,780) disclosed a dual pipeline superscalar reduced instruction set system architecture (e.g., see abstract) and mask registers (e. g ., see figs. 27,28).

Caulk (patent No. 6,341,324) disclosed a system with exception processing handled by coprocessor that uses registers to process the exception (e.g, see col. 6, line 45-col. 7, line 44).

Cutler (patent No. 5,148,544) disclosed a system for control of asynchronous program interrupts with request registers that may only be accessed from the privileged mode of operation (e.g., see abstract).

Kamiya (patent No. 4,949,238) disclosed a apparatus for detecting memory protection violation (e.g., see abstract).


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Coleman whose telephone number is (571) 272-4163. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Chan can be reached on (571) 272-4162. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EC



ERIC COLEMAN
PRIMARY EXAMINER